

***Response to Amendment***

1. In further consideration of the amended claims over prior art, the examiner believed such claims are unpatentable in view of Tsunoda et al. ("US 4,342,023 B2") and Cranfill et al. (US 7,242,784). And thus, as a result of change of ground with the new prior art, this action will be made nonfinal.

Notice the finality of the last office action has been withdrawn and vacated and this action will be made nonfinal.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-4,6-7,10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsunoda et al. ("US 4,342,023 B2") and Cranfill et al. (US 7,242,784 B2).

Re claim 1, Tsunoda et al. disclose a method for intelligent audio output control (fig.1-3; col.2 line 8-12), the method comprising: receiving values for a set of input parameters (fig.1-2 wt (20); col.4 line 28-39) and receiving

stored historical data, wherein the stored historical data comprises stored values for the set of input parameters and a stored audio output parameter value associated with the stored values for the set of input parameters ("fig.1-2 wt: (11); col.5 line 30-65, ; col.4 line 45-57/ stored input data and corresponding precise output stored for specific input data see (col.2 line 40-50)"); predicting a value for an audio output parameter of an audio system based on the received values for the set of input parameters and the stored historical data; ("fig.1-2 wt (1,11); col.4 line 50-56/input data and corresponding wt stored data (Ram, memory) may be outputted"); and adjusting the audio output parameter for the audio system using the predicted value for the audio output parameter ("fig.1 (12)/output value according to specific input data (1) may be adjusted)").

While, Tsunoda et al. disclose of the above with input data corresponding with output data, However, He fail to disclose of the specific wherein the stored historical data comprises a plurality of data points, wherein each data point includes a value for each of the set of input parameters and the audio output parameter value associated with the set of input parameters and adjusting the audio output parameter for the audio system using the predicted value for the audio output

parameter, wherein the step of predicting a value for an audio output parameter comprises one of receiving the plurality of data points and performing statistical analysis on the plurality of data points to predict the value for the audio output parameter; and identifying a closest data point within the plurality of data points and setting the predicted value for the audio output parameter to an audio output parameter value of the closest data point. But, Cranfill disclose of the dynamic control gain signal wherein the stored historical data comprises a plurality of data points, wherein each data point includes a value for each of the set of input parameters and the audio output parameter value associated with the set of input parameters and adjusting the audio output parameter for the audio system using the predicted value for the audio output parameter, wherein the step of predicting a value for an audio output parameter comprises one of receiving the plurality of data points and performing statistical analysis on the plurality of data points to predict the value for the audio output parameter; and identifying a closest data point within the plurality of data points and setting the predicted value for the audio output parameter to an audio output parameter value of the closest data point (fig.1 wt (memory), fig.4-5, col.3 line 29-40, col.5 line 35-65/statistical interpolation with linear for input and output data point with closest data points) for the purpose of dynamically improving the audio gain so low input

level could be heard. Thus, taking the combined teaching of Tsunoda et al. and Cranfill as a whole, it would have been obvious for one of the ordinary skill in the art to have modify Tsunoda et al. by incorporating the wherein the stored historical data comprises a plurality of data points, wherein each data point includes a value for each of the set of input parameters and the audio output parameter value associated with the set of input parameters and adjusting the audio output parameter for the audio system using the predicted value for the audio output parameter, wherein the step of predicting a value for an audio output parameter comprises one of receiving the plurality of data points and performing statistical analysis on the plurality of data points to predict the value for the audio output parameter; and identifying a closest data point within the plurality of data points and setting the predicted value for the audio output parameter to an audio output parameter value of the closest data point for the purpose of dynamically improving the audio gain so low input level could be heard.

Re claim 2, the method of claim 1, wherein the step of receiving values for a set of input parameters includes receiving values from one or more sensors ("col.2 line 40-50; fig.1 (1)").

Re claim 3, the method of claim 1, wherein the set of input parameters includes at least one of vehicle speed (fig.2; col.2 line 40-45).

Re claim 4, Tsunoda et al. disclosed of the method of claim 1 with the data input and sensors (fig.1-2). But, Tsunoda et al. fail to disclose of the limitation wherein the set of input parameters includes audio type. However, official notice is taken the concept of receiving input audible sound is commonly known in the art, thus it would have been obvious for one of the ordinary skill in the art at the time of the invention, to have incorporating the receiving input audible sound for the purpose of adjusting the automobile sensed sounds conditions according to noise detected in the vehicle passenger compartment.

Re claim 6, the method of claim 1 with the statistical analysis being performed, wherein the statistical analysis includes at least one of performing linear regression analysis ("cranfill, fig.4-5, col.4 line 62-65").

Re claim 7, the method of claim 1, further comprising:  
storing the values for the set of input parameters and the audio

output parameter prediction as a data point ("col.3 line 25-40, fig.4-5").

Re claim 10, the method of claim 1, wherein the audio output parameter is one of volume level ("col.1 line 23-24; col.1 line 30"), However, the combined teaching of Boyd and Cranfill et al. as a whole, fail to disclose of the equalizer settings. But, official Notice is taken that this limitation is commonly known in the art, thus it would have been obvious for one of the ordinary skill in the art to modify Boyd by incorporating the equalizer settings as output parameter for purpose of obtaining improve audio sound.

### **Contact**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Disler Paul whose telephone number is 571-270-1187. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/D. P./  
Examiner, Art Unit 2615

/Vivian Chin/  
Supervisory Patent Examiner, Art Unit 2615